SAVING THE GIANTS

The redevelopment of the Valley of the Giants, one of WA's traditional tourist stops, reflects the revolution in recreation site design and management which is turning degraded old sites into world-class models of ecologically sustainable tourism.

by Cliff Winfield

Twenty years ago, no tour of the South West was complete without a photograph of the car parked in the giant hollowed out tingle tree in the forest near Nornalup. Visitors to the well-known picnic site called the 'Valley of the Giants' could follow a little path, etched through the dense understorey bush, which would reveal another dozen or so big tingle trees. There were also some with burnt out hollow bases creating black caves beckoning a look inside, and other distorted trunks bearing lumps and 'eye-like' scars, which took on the eerie appearance of aged human faces. This near mythical experience was a highlight for the modest numbers of visitors seeking the South West forest experience.

In the 1970s, visitors had these bush attractions to themselves, or might have shared the experience with a few other families during the busier periods around Christmas and Easter. At that time, Perth was scarcely more than a staging post on the international flight path, and the

expense of domestic airfares and long distances by road kept many eastern states people holidaying in their own territory. Only a few thousand people, most of them Western Australians, visited the Valley each year. But a well-kept secret seldom stays so for long, and eventually the area was to crack under growing visitor pressure.

Through the 1980s, a growing international profile for WA, the deregulation of domestic air travel and, perhaps more importantly, the surfacing of the Eyre Highway across the Nullarbor brought about a dramatic change in visitor numbers. In 1989, the annual number of visitors to the Valley had risen to around 100 000 and was still increasing. The carpark had expanded uncontrollably to resemble a gravel football oval. The quaint trail to the other 'giants' had become a labyrinth of 'goat tracks' leading to every big tree in the area. The bark on the trees had become polished by millions of exploring hands, and the vital nourishing layer of humus around their trunks had disappeared. For the huge tree, which had been the main attraction, the end was nigh. Years of people and vehicles trampling around its base had compacted the root zone and

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Walking in the crowns of tingle and karri trees. The Tree Top Walk is one of the key features of the Valley of the Giants redevelopment.

Below: The view from the top. Looking down from the highest point of the Tree Top Walk onto leafy understorey and emerging younger trees of the tingle forest.
Photos – Michael James

strangled its nutrient supply. In 1990, the giant collapsed. The Valley was being visited to death.

At the time, the Valley of the Giants was part of State forest. The Department of Conservation and Land Management's (CALM) 1987 Regional Management Plan recommended that Giants block (which includes the Valley of the Giants) be included in the adjacent Walpole-Nornalup National Park, which occupies a unique high-rainfall corner of Western Australia with spectacular landscapes of estuaries, forested hills dissected by rivers, and dramatic coastal scenery.

Work began on a management plan for Walpole-Nornalup National Park in 1990. The plan involved studies of visitor patterns and preferences in the Walpole area, and it was no surprise when surveys echoed the general trend of people wanting more from their visits to the forest—more information and interpretation, more facilities, more activities. Meanwhile, the numbers of visitors to the Valley continued to increase to around 140 000. At one time during the Christmas–New Year period of 1990–91, more than 50 cars were crammed into the carpark, along the access road and even in the bush itself. It was clear that urgent action was needed to rescue this piece of WA's natural heritage.

Executive Director Syd Shea holidays each year at Walpole with his family. After visiting the Valley of the Giants, Dr Shea was equally concerned about the condition and health of the site and, particularly, with the fact that little was being offered to the many coach-loads of visitors that were still turning up there. When he returned to Perth, Dr Shea suggested that CALM should investigate the possibility of building a treetop walk, similar to one he had seen in Malaysia, when attending a forestry conference there.

Top left: Quaint but unsustainable. For decades the novelty of being able to park a vehicle inside a tree was an attraction for visitors to the old site. The tree eventually succumbed to the constant compaction around its root zone and collapsed.
Photo – Battye Library

Top right: The leaf-shaped signs in the Ancient Empire are an innovative feature of the redevelopment.

Above: The Tingle Shelter houses the information boards, administration office, souvenir shop and toilets.
Photos – Michael James

TREADING THROUGH THE TREETOPS

Walpole-Nornalup National Park has three species of tingle tree—including the red tingle *(Eucalyptus jacksonii)*, common in the Valley—which grow only in the Walpole area, as well as the red flowering gum *(E. ficifolia)* that also occurs closer to the sea. The 1990 management plan emphasised the need for urgent protection from soil compaction for the trees in the Valley. It was suggested that the old site be closed and a new one be opened in a second, recently discovered grove of big trees about a kilometre away. But this idea did not address the issue of soil being trampled by visitor pressure. Instead, it simply moved the problem elsewhere.

Left: Mid-way along the Tree Top Walk, visitors are surrounded by the sights, sounds and scents of the forest canopy.

Below: Begining at the Tingle Shelter, the walkway rises gentley so that people in wheelchairs and children in strollers can be pushed along it. As the valley falls away, they are soon winding their way through the canopy.
Photos – Michael James

A project team was formed to address the problems at the Valley. When the team examined Dr Shea's suggestion of using elevated walkways to protect the giant tingle trees, they found a surprising fillip. Similar structures in rainforest in New South Wales and Queensland were attracting enough tourists to support commercial ventures, which in some cases subsidised park management.

A business plan was drafted and it became obvious that a treetop walk had the potential to generate enough revenue to subsidise the development and management costs of many other visitor facilities in the region. The creation of a treetop walk in the Valley of the Giants could minimise visitor impact on the forest, provide exciting new tourist experiences and help pay for park management, all at the same time.

A master plan for the Valley was drafted by CALM staff from the local district and regional offices and the Recreation and Landscape Branch in Perth. Other features were proposed for the 'new-look' Valley, which included a visitor orientation and information area, interpretation of the forest system, and access for wheelchair users, making the experience memorable and instructive.

FINDING A SITE

It soon became obvious to the planners that the tired old giants of the original site would not provide much of a treetop experience, as most of them did not have tall trunks and crowns. After carrying out helicopter surveys, the team located a group of big tingle trees with trunks and crowns intact, just a few hundred metres north of the original site. So dense is the tingle forest understorey that, despite hundreds of thousands of visitors passing nearby, these 'new giants' had remained a secret. After weeks of crossing the new area on foot, at times having to crawl on all fours through the thick bush, the

Right: The boardwalk of the Ancient Empire had been carefully designed to protect the tree roots, while forming a sculptural element within the forest.

Below: The Tree Top Walk and the Ancient Empire provide a range of challenging sensory experiences.

Below right: Before the protective boardwalk was constructed at the Ancient Empire, the ground surrounding this amazing tree was bare and compacted.
Photos – Cliff Winfield

planners were confident: this was the site for the treetop walk.

But other visitor facilities had to be planned for as well. The new Valley would have to accommodate a number of types of visitors, and provide a range of activities and experiences. For example, statistics from the original site showed that more than half of the visitors came in tour coaches, which stopped for a quick look, while during peak periods, many people were looking for family walktrails and barbecue facilities. Meanwhile, the new Bibbulmun Track—the long-distance walktrail from Perth to Albany—would now pass right through the Valley of the Giants, bringing in low-impact bushwalkers seeking a wilderness experience.

With an underpinning philosophy of minimising disturbance to the bush, the master plan had to meet this range of needs while including a treetop walk, a visitor orientation centre, the old giants, other walks, a carpark to fit 50 cars and six coaches, and a safe access road. Between the proposed treetop walk and the old giants, a gathering point, to be called the 'Tingle Shelter', was planned so that the entire area, except for a discovery trail, could be accessible by people using wheelchairs.

THE NUTS AND BOLTS

By far the greatest challenge in the new development was the task of designing and building a treetop walk without damaging the main attraction—the bush itself. CALM decided to hold a design competition for the 'Tree Top Walk' and the Tingle Shelter, and set out forty strict criteria. Designers had to produce a plan that created little disturbance to the forest environment, minimised any long-term impact on the bush and ensured visitor safety was paramount. And they had to meet strict aesthetic standards as well, creating a structure that was sculptural, with attention to scale, form, line, colour and texture that would enhance the forest setting rather than stand out from it.

Some 40 entries were received from around the world. From these, four syndicates were commissioned to provide detailed, accurately costed proposals. These submissions were then assessed against the design criteria by a panel that included members of the Royal Australian Institute of Architects, the Australian Institute of Landscape Architects and the Institution of Engineers, Australia. The winning design came from Donaldson and Warn, Architects, leading a team that included engineers Ove Arup and Partners, environmental artist David Jones and quantity surveyors Ralph and Beattie Bosworth.

The design for the Tree Top Walk featured six lightweight bridge spans, each 60 metres long and four metres deep, supported between guyed pylons. The steel trusses rose slowly on a 1:12 grade over terrain that falls to a deep valley. Eventually the bridge spans reached a height of 40 metres above the creek bed.

A prototype was constructed by WA-based company Future Engineering and Communication, and was carefully tested for flexibility and choice of decking material. The trusses were then prefabricated before shipment in sections no longer than six metres. The short and relatively light sections were easily transported to the Valley and bolted together on the ground before being

Natural art. The designers were influenced by the shapes and colours of the tingle forest. The form of the Tree Top Walk is strongly influenced by the tassel flower, while the pylon colour mimics tingle bark.
Photo – Michael James

hoisted into position, minimising site disturbance and creating a walkway that, remarkably, only occupies about three square metres of forest floor.

All manner of aesthetic and practical considerations have been made by the winning designers. The form of the trusses mimics the natural form of sword grass, a predominant local plant species, while the pylons resemble the tassel flower. The modular construction of the bridge spans allows for simple future additions to the structure, making the potential for growth and enhancement of the Valley experience a practical option. And the low incline of the bridge spans enables access for people in wheelchairs making the treetop experience available to everyone.

INTERPRETING THE TINGLE

Another challenge facing the planners was interpretation. The Tree Top Walk might alleviate the pedestrian pressure on the forest floor of the new giants, but the problem of protecting the old giants from being loved to death remained. Structures and interpretive material would be needed to keep the experience of the veteran trees available, while protecting them from further harm.

Part of the fascination with the tingle forest is the strange, almost primordial appearance of trees with trunks like contorted faces—the stuff of fairy tales. In fact, the tingle trees *are* caught in a botanical time warp of sorts. Research suggests that tingles were much more widespread during a past wetter era.

After many thousands of years of diminishing rainfall, their distribution has contracted to just a few thousand hectares around Walpole. Their invertebrate tenants have made an even more remarkable journey through space and time. At one point, the Australian continent was joined to Antarctica, India, Africa and South America as the supercontinent Gondwana. This empire of continents broke up and drifted apart some 50 million years ago, but the legacy of the union are Gondwanan relict species such as the tingle spiders, snails and the ancient peripatus, which is a living link between worms and anthropods. Based on the theme of the lost era of Gondwana, the more than 400-year-old giants have been given the title 'Ancient Empire', and the interpretive planning accents this.

Rowena Howard, a landscape architect, was contracted to design an interpretive experience, using boardwalks and hardened paths, to explore the science, fantasy, intrigue and grandeur of the old trees. The project has been designed in three sections, two of which have attracted funding from the Commonwealth Department of Tourism as a site of national tourism significance. The first is a universally accessible boardwalk (with wide paths, stable surfaces, no steps, and no grades over 1:14) to one of the most popular of the gnarled veterans. The second stage is a mixture of boardwalk and stabilised earth path, which winds in and out, up, over and through seven more giants. The path serves a dual purpose. For the young and the fit, it is a discovery trail, while the contemplative visitor can make use of interpretive stops, scattered along the way, with seats and inspirational poetry sculpted into metal leaf structures.

A proposed third stage, called 'Seven Levels of Intrigue', is an extension of the first stage, and aims to heighten visitors' senses to the sounds, textures, colours and forms of the forest. This stage will be built some time in the future, funded by revenue from the Tree Top Walk.

The Tingle Shelter, Tree Top Walk, Ancient Empire, other forest walks and the link to the Bibbulmun Track have all helped recover the tingle forest from a downward spiral. The modern, multi-faceted facility offers a sensitively designed interpretive and educational experience to visitors of all ages and abilities, with an element of environmentally sustainable adventure. Through careful planning and a touch of ingenuity, the Valley of the Giants has been transformed from a moribund curiosity to a vibrant, state-of-the-art, nature-based tourism experience that will delight and inform generations to come. And a major flow on will be the economic benefits to the Denmark and Walpole districts, stemming from what is destined to become one of Australia's tourism icons.

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Rainbow lorikeets. Are they pests? Will they displace our native birds? Do we need to control their numbers, and if so, how? Find out more on page 17.

*A subspecies of granny bonnets (*Isotropis cuneifolia *subsp.* glabra*) found in a threatened community on the Swan Coastal Plain. See story on page 35.*

'The Magic of Magenta' co-author Mal Graham clearing an Aboriginal soak in Lake Magenta Nature Reserve. See our story on page 41.

A rat by any other name...? In 'Dinkum Aussie Rats' Andrew Burbidge discusses the use of common and Aboriginal names for native rodents.

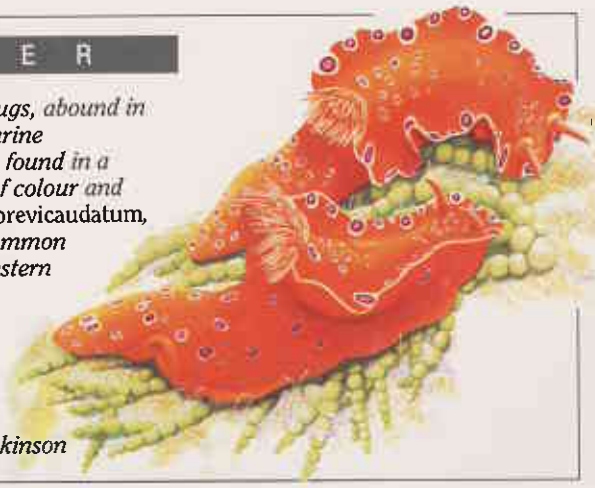
In 'Saving the Giants', read how a new Tree Top Walk in WA's south-west is set to become one of Australia's nature-based tourism icons.

FEATURES

REGULARS

COVER

Nudibranchs, or sea-slugs, abound in Western Australia's marine environment. They are found in a tremendous diversity of colour and form, the Ceratosoma brevicaudatum, *illustrated here, is a common inhabitant of south-western waters. See page 28 to learn more about the 'Slugs of the Sea'.*



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